

REMARKS

In the present patent application, claims 1-20 are pending. Applicant has amended claims 1, 9 and 14 and added new claims 21 and 22 herein. Applicant respectfully requests reconsideration of the claims in view of following remarks.

Support for the claim amendments can be found in the specification, original claims, and figures. Accordingly, applicant submits that no new matter has been introduced by the claim amendments.

Claims 1, 6, 9, 14 and 19 were rejected under 35 U.S.C. § 102(e) based on Ariav et al. (U.S. Patent Publication No. 2006/0087325).

Referring to independent claim 1, as amended, the claim recites in part:

“a plastic cord having a portion that is configured to be placed across a chest of a person, the plastic cord being substantially transparent to x-rays; and,

a sensor coupled to an end of the plastic cord, the end of the plastic cord being configured to be disposed away from the chest of the person, the sensor generating a measurement signal indicative of an amount of linear displacement of the plastic cord during respiration by the person.”

Referring to Ariav et al, the reference discloses a sensor that measures a respiration or cardiac rate of a person. In particular, an elastomeric body 53 containing a transmitter 51 and a receiver 52 embedded therein is secured by an elastomeric band 55 to a chest of a patient. See paragraph 0080. However, Ariav et al. does not provide any teaching of the elastomeric band 55 being constructed from plastic. Further, Ariav et al. states that a sensor can be utilized for producing gating signals for synchronizing the operation of an MRI apparatus to prevent blurring produced by body motion. See paragraph 0160. Ariav et al., however, does not provide any teaching of the elastic belt being substantially transparent to X-rays. Accordingly, Ariav et al. does not provide any teaching of: “a plastic cord having a portion that is configured to be placed across a chest of a person, the plastic cord being substantially transparent to x-rays”, as recited in independent claim 1 as amended. Further, Ariav et al. does not provide any teaching of: “a

sensor coupled to an end of the plastic cord, the end of the plastic cord being configured to be disposed away from the chest of the person, the sensor generating a measurement signal indicative of an amount of linear displacement of the plastic cord during respiration by the person", as recited in claim 1.

Accordingly, because Ariav et al. does not teach each and every element of independent claim 1, and claim 6 which depends from claim 1, applicant submits that claims 1 and 6 are allowable over this reference.

Referring to independent claim 9, as amended, the claim recites in part:

"disposing a portion of a plastic cord across a chest of the person, wherein a sensor is coupled to an end of the plastic cord and is disposed away from the chest of the person, the plastic cord being substantially transparent to x-rays; and,

generating a measurement signal indicative of an amount of displacement of the plastic cord during respiration by the person utilizing the sensor coupled to the end of the plastic cord."

Referring to Ariav et al., the reference does not provide any teaching of: "disposing a portion of a plastic cord across a chest of the person, wherein a sensor is coupled to an end of the plastic cord and is disposed away from the chest of the person, the plastic cord being substantially transparent to x-ray", as recited in claim 9 as amended. Further, Ariav et al. does not provide any teaching of: "generating a measurement signal indicative of an amount of displacement of the plastic cord during respiration by the person utilizing the sensor coupled to the end of the plastic cord", as recited in claim 9 as amended.

Accordingly, because Ariav et al. does not teach each and every element of independent claim 9, as amended, applicant submits that claim 9 is allowable over this reference.

Referring to independent claim 14, as amended, the claim recites in part:

a plastic cord that has a portion configured to be placed across a chest of a person lying on the tabletop, the plastic cord being substantially transparent to x-rays; and,

a sensor operatively coupled to an end of the plastic cord generating a measurement signal indicative of an amount of displacement of the plastic cord during respiration by the person, the end of the plastic cord and the sensor being configured to be disposed away from the chest of the person outside a scanning area of the X-ray device.

Referring to Ariav et al., the reference does not provide any teaching of: "a plastic cord that has a portion configured to be placed across a chest of a person lying on the tabletop, the plastic cord being substantially transparent to x-rays", as recited in claim 14 as amended. Further, Ariav et al. does not provide any teaching of: "a sensor operatively coupled to an end of the plastic cord generating a measurement signal indicative of an amount of displacement of the plastic cord during respiration by the person, the end of the plastic cord and the sensor being configured to be disposed away from the chest of the person outside a scanning area of the X-ray device", as recited in claim 14 as amended.

Accordingly, because Ariav et al. does not teach each and every element of independent claim 14, as amended, and claim 19 which depends from claim 14, applicant submits that claims 14 and 19 are allowable over this reference.

Claims 4, 5, 10, 11, 17 and 18 were rejected under 35 U.S.C. § 103(a) based on Ariav et al. in view of Bowers (U.S. Patent No. 5,207,230), and in further view of Zomer (U.S. Patent No. 5,235,989).

Claims 4 and 5 depend from claim 1 and thus include all of the limitations of claim 1 as amended. Ariav et al. does not provide any teaching of: "a sensor coupled to an end of the plastic cord, the end of the plastic cord being configured to be disposed away from the chest of the person, the sensor generating a measurement signal indicative of an amount of linear displacement of the plastic cord during respiration by the person", as recited in claims 1, 4 and 5. Further, Bowers and Zomer do not provide any teaching of the foregoing claim limitations.

Accordingly, because the combination of Ariav et al., Bowers and Zomer does not teach each and every element of claim 1 and claims 4 and 5 which depend from claim 1, applicant submits that claims 4 and 5 are allowable over these references.

Claim 10 depends from claim 9 and thus includes all of the limitations of claim 9 as amended. Ariav et al. does not provide any teaching of: "disposing a portion of a plastic cord across a chest of the person, wherein a sensor is coupled to an end of the plastic cord and is disposed away from the chest of the person, the plastic cord being substantially transparent to x-rays", as recited in claims 9 and 10. Further, Bowers and Zomer do not provide any teaching of the foregoing claim limitations. Ariav et al. does not provide any teaching of: "generating a measurement signal indicative of an amount of displacement of the plastic cord during respiration by the person utilizing the sensor coupled to the end of the plastic cord", as recited in claims 9 and 10. Further, Bowers and Zomer do not provide any teaching of the foregoing claim limitations.

Accordingly, because the combination of Ariav et al., Bowers and Zomer does not teach each and every element of claim 9 and claim 10 which depend from claim 9, applicant submits that claim 10 is allowable over these references.

Claims 17 and 18 depend from claim 14 and thus include all of the limitations of claim 14 as amended. Ariav et al. does not provide any teaching of: "a sensor operatively coupled to an end of the plastic cord generating a measurement signal indicative of an amount of displacement of the plastic cord during respiration by the person, the end of the plastic cord and the sensor being configured to be disposed away from the chest of the person outside a scanning area of the X-ray device", as recited in claims 14, 17 and 18. Further, Bowers and Zomer do not provide any teaching of the foregoing claim limitations.

Accordingly, because the combination of Ariav et al., Bowers and Zomer does not teach each and every element of claim 14 and claims 17 and 18 which depend from claim 14, applicant submits that claims 17 and 18 are allowable over these references.

Claims 2 and 3 were rejected under 35 U.S.C. § 103(a) based on Ariav et al. in view of Rasche et al. (U.S. Patent No. 6,865,248), and in further view of Sontag et al. (U.S. Patent No. 6,298,260).

Claims 2 and 3 depend from claim 1 and thus include all of the limitations of claim 1 as amended. Ariav et al. does not provide any teaching of: "a sensor coupled to an end of the

plastic cord, the end of the plastic cord being configured to be disposed away from the chest of the person, the sensor generating a measurement signal indicative of an amount of linear displacement of the plastic cord during respiration by the person", as recited in claims 1, 2 and 3.

Further, Rasche et al. and Sontag et al. do not provide any teaching of the foregoing claim limitations.

Accordingly, because the combination of Ariav et al., Rasche et al. and Sontag et al. does not teach each and every element of claim 1 and claims 2 and 3 which depend from claim 1, applicant submits that claims 2 and 3 are allowable over these references.

Applicant has added new claims 21 and 22. Support for new claims 21 and 22 can be found in the specification, figures, and original claims. Accordingly, applicant submits that no new matter has been introduced by claims 21 and 22. The Examiner indicated prior claims 7 and 20 would be allowable if rewritten in independent form including all the limitations of the base claim and any intervening claims. New claim 21 has the limitations of prior claims 1 and 7. New claim 22 has the limitations of prior claims 14 and 20. Accordingly, applicant submits that claims 21 and 22 are in condition for allowance.

In view of the foregoing remarks, applicant respectfully submits that the instant application is in condition for allowance. Such action is most earnestly solicited. If for any reason the Examiner feels that consultation with applicant's attorney would be helpful in the advancement of the prosecution, the Examiner is invited to call the telephone number below for an interview.

If there are any charges due with respect to this response document or otherwise, please charge them to Deposit Account No. 07-0845.

Respectfully Submitted,
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